

AM416860

SUB CODE: AP, PR

SUBMITTED: 20Apr63

NR REF SOV: 056

OTHER: 007

DATE ACQ: 17Jan64

Card 6/6

ZARYANKIN, A.Ye., kand.tekhn.nauk; KRUGLENKOV, A.A., inzh.

Study of the exhaust nozzles of condensing steam turbines. Teploenergetika
10 no.2:41-45 F '63. (MIRA 16:2)

1. Moskovskiy energeticheskiy institut.
(Steam turbines)

AUTHOR: Maryankin, A. Ye.

0.6
13

Card 1

13221-63
ACCESSION NO: AP3004-124

where α is the divergence half-angle of the outer cone, and k is determined

$$k = \frac{1}{2} \left(\frac{r_2}{r_1} + \frac{r_1}{r_2} \right) \left(\frac{r_2}{r_1} - \frac{r_1}{r_2} \right) \left(\frac{r_2}{r_1} + \frac{r_1}{r_2} \right) \left(\frac{r_2}{r_1} - \frac{r_1}{r_2} \right)$$

where r_1 and r_2 are outlet and inlet cross sections of the inner cone and k is

Cor: 0.1

L 11221-01

reduced. It is concluded that a geometrical proportion between α and β is
inversely proportional to α . Orig. art. has: 3 figures and 10 formulas.

ASSOCIATION: none

SUBMITTED: 21Jul62

DATE ACQ: 06Sep63

ENCL. 00

INT. CODE: 22

NO. 222 001 000

YR. 1962

ACCESSION NR: AP4014406

S/0143/63/000/012/0064/0072

AUTHOR: Deych, M. Ye. (Doctor of technical sciences, Professor);
Zaryankin, A. Ye. (Candidate of technical sciences); Mikhnenkov, L. V.
(Engineer); Frolov, L. B. (Engineer)

TITLE: Effect of throttling ring on the operation of a radial-axial turbine

SOURCE: IVUZ. Energetika, no. 12, 1963, 64-72

TOPIC TAGS: turbine, radial axial turbine, turbine power control, throttling
turbine control, throttling ring turbine control

ABSTRACT: Controlling turbine power by the introduction of a throttling ring
between the nozzle-box assembly and the rotor was experimentally investigated.
A turbine described by A. Ye. Zaryankin, et al. (IVUZ. Energetika, no. 8, 1961)
was used at 1.82 pressure drop and 0.17, 0.282, and 0.47 relative ring
throttling. At 47% throttling, the turbine efficiency was 15% lower. The

Card 1/2

ACCESSION NR: AP4014406

theoretical explanation of losses associated with this type of throttling is given in the article. The above-described "attempt to throttle the flow in the gap between the nozzle box and the rotor did not yield favorable results and can be recommended for cases where reliable control devices of minimum size are required. The last requirement may prove decisive in transportation plants...." Orig. art. has: 7 figures and 13 formulas.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power - Engineering Institute)

SUBMITTED: 19Jun63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: PR, AP

NO REF SOV: 005

OTHER: 000

Card 2/2

ACCESSION NR: AP4015126

S/0124/63/000/012/B040/B040

SOURCE: RZh. Mekhanika, Abs. 12B229

AUTHOR: Zaryankin, A.Ye.

TITLE: On eddy currents in plane diffusers

CITED SOURCE: Tr. Mosk. energ. in-ta, vy*p. 47, 1963, 79-91

TOPIC TAGS: eddy current, plane diffuser, diffuser

TRANSLATION: For the purposes of theoretical study of breakdown states in the operation of plane diffusers, the author assumes that the flow of an ideal non-compressible fluid is formed by a source of intensity Q and an eddy current of intensity Γ located near one of the diffuser walls. This idealized problem is solved by the method of functions of a complex variable. The resulting solution makes possible the determination of the direction and velocity of the eddy displacement, the conditions for the existence of a stationary eddy, as well as the explanation of many of the peculiarities of fluid flow in a plane diffuser.

V.A. Bashkin.

DATE ACQ: 31Dec63

SUB CODE: PH

ENCL: 00

Cord 1/1

ACCESSION NR: AR4015127

S/0124/63/000/012/B040/B041

SOURCE: RZh. Mekhanika, Abs. 12B231

AUTHOR: Zaryankin, A.Ye.; Zatsopin, M.F.

TITLE: Results of studies of conic and ring diffusers

CITED SOURCE: Tr. Mosk. energ. in-ta, vy*p. 47, 1963, 105-116

TOPIC TAGS: diffuser, conic diffuser, ring diffuser

TRANSLATION: The authors examine the effects of various parameters on the losses in conic and ring diffusers. Losses in a conical diffuser are described by the functional dependence $\xi = f(\alpha, n, M, R)$, where α is the aperture angle, $n = F_k/F_H$ is the degree of diffuser expansion (F_k and F_H are the areas at the inlet and outlet, respectively), M and R are Mach and Reynolds numbers. The presence of breakoff complicates the study of flow. For non-breakoff diffusers, the losses computed on the basis of boundary layer theory are determined by parameters n, α, R , and M .

Card 1/3

ACCESSION NR: AR4015127

1. The effect of the degree of expansion n . Experiments show that the increase in n with a constant angle α and a constant velocity at the inlet leads to a considerable increase in losses. This is associated with the increase in the integral boundary layer thicknesses. The evaluation for $\alpha = 10^\circ$ shows that the losses increase most intensively with small values of n , whereupon their growth diminishes. The results cannot be extrapolated for large n , when breakoff occurs. The study showed that $n > 2.5$ is inadvisable.

The effect of α . The increasing of α leads to a reduction of the losses until the breakoff of the flow; in the presence of breakoff the losses increase. Experiments with $n = 3.55$ have shown that breakoff occurs with $\alpha > 11^\circ$. Economically, it is advisable to make use of diffusers with limiting expansion angles.

3. The effect of the number R . With non-breakoff flow, the effect of the number R is not significant. In the presence of breakoff, the Reynolds number affects not only the integral thicknesses, but also the position of the breakoff point.

4. The effect of the number M . Increasing the number M leads to increases in the displacement thicknesses in the initial portion of the diffuser and their reduction toward the outlet. With small angles (8.30° and 16.20°), the losses for $M < 0.5$ remain practically unchanged, increasing sharply with $M > 0.6$. With

Card 2/3

ACCESSION NR: AR4015127

increasing α , losses grow with smaller numbers M . This is due to the increase in the velocity gradient in the initial portion of the diffuser, which leads to the possibility of breakoff. The breakoff which does occur has a nonstationary character, and the breakoff frequency increases with the M number.

The ring diffuser in most cases constitutes a channel between two coaxial conical surfaces. Losses in such a diffuser may be expressed in terms of the conical diffuser losses, although in place of n it is more convenient to introduce the argument l/D , where l is the height of the ring channel at the inlet and D is the ring diameter. It was found that losses increase with decreasing l/D . The effect of the aperture angle α is also considered. Yu.P. Lun'kin.

DATE ACQ: 31Dec63

SUB CODE: MM

ENCL: 00

Card 3/3

ACCESSION NR: AP4014236

S/0143/64/000/001/0069/0076

AUTHOR: Zaryankin, A. Ye. (Candidate of technical sciences)

TITLE: Calculating the losses in a nonseparating conical diffuser

SOURCE: IVUZ. Energetika, no. 1, 1964, 69-76

TOPIC TAGS: turbine, gas turbine, diffuser, gas turbine diffuser, conical diffuser, nonseparating diffuser, conical diffuser loss, energy loss calculation

ABSTRACT: Experience has shown that the energy losses in conical diffusers calculated from Bogamazov's, et al., formula ("Energomashinostroyenie," no. 1, 1961) are lower than the actual losses determined from experiments. the above formula was based on a consideration of the kinetic energy only, the present article tries to take into account both kinetic and potential energies in evaluating friction-caused losses. This formula for loss calculations is offered:

$$\zeta = \frac{(0,045 + 0,025n) \left(1 - \frac{1}{n^2}\right)}{Re_L^{0,2} \sin \frac{\alpha}{2} - 0,054n (\sqrt{n} - 1)}, \text{ where } n \text{ is the diffuser expansion ratio. It is claimed}$$

Card 1/2

ACCESSION NR: AP4014236

that this formula has been found in good agreement with experimental data.

Orig. art. has: 3 figures and 17 formulas.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power-Engineering Institute)

SUBMITTED: 04Jan63

DATE ACQ: 03Mar64.

ENCL: 00

SUB CODE: PR, AP

NO REF SOV: 005

OTHER: 000

Card 2/2

ACCESSION NR: AP4023736

S/0114/64/000/003/0033/0035

AUTHOR: Zaryankin, A. Ye. (Candidate of technical sciences); Zataepin, M. F. (Candidate of technical sciences)

TITLE: Effect of the housing-rotor gap upon the stage efficiency in a radial-axial turbine

SOURCE: Energomashinostroyeniye, no. 3, 1964, 33-35

TOPIC TAGS: turbomachine, radial axial turbine, turbine efficiency, turbine gap, radial axial turbine efficiency

ABSTRACT: New formulas for determining the effect of the gap on the efficiency are developed. This general formula gives a ratio of the efficiency with a gap Δ to the efficiency with 0 gap:

$$\frac{\eta_{0\Delta}}{\eta_0} = \frac{\eta_{0\Delta}}{\eta_0} + \frac{\left(1 - \frac{\eta_{0\Delta}}{\eta_0}\right)^2}{1 - \frac{\eta_{0\Delta}}{\eta_0} + q \left(\frac{\bar{\Delta}_1}{1 + \bar{\Delta}_1}\right)^2 + k_1 \bar{\Delta}_1 \left(1 + \frac{1}{\theta}\right)}$$

Card 1/2

ACCESSION NR: AP4023736

where Δ_1 and Δ_2 are the inlet and outlet gaps, respectively;

$k_2 = \sin \alpha_{2 \text{ out}} / \sin \alpha_{2 \text{ av}}$ (where α_2 is the outlet-stream angle); $\theta = D_{av} / l_2$

(where D_{av} is the rotor-outlet average diameter, l_2 is the blade height at the outlet). Practical simplifications of the above general formula are indicated, and their good agreement with experimental data is reported. Orig. art. has: 6 figures and 15 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 15Apr64

ENCL: 00

SUB CODE: PR, AP

NO REF SOV: 003

OTHER: 001

Cord 2/2

ZARYANKIN, A.Ye., kand. tekhn. nauk; BELIKOV, A.G., inzh.

Effect of the form of the rims of a channel in front of the
nozzle apparatus on its efficiency with large input overlaps.
Toploenergetika 11 no.4:49-52 Ap '64. (MIRA 17:6)

1. Moskovskiy energeticheskiy institut.

L 37079-66 EWP(k)/EWT(m)/T-2/EWP(w)/EWP(v) IJP(c) EM

ACC NR: AP6012434

(N)

SOURCE CODE: UR/0143/65/000/011/0030/0035

AUTHORS: Zaryankin, A. Ye. (Candidate of technical sciences, Docent); Zatsepin, M. F. (Candidate of technical sciences)

ORG: Moscow Power Engineering Institute (Moskovskiy energeticheskiy institut)

14
B

TITLE: Some results of improving turbine exhaust passages

SOURCE: IVUZ. Energetika, no. 11, 1965, 30-35

TOPIC TAGS: gas turbine, exhaust gas dynamics

ABSTRACT: The effects of changing the exhaust diffuser parameters on stage efficiency of medium- and small-sized gas turbines were experimentally investigated. The diffuser geometry was varied as shown in Fig. 1 with α at 8, 11, and 14° and expansion ratios of 1.51 (original design) to 2.74 ($D/l_1 = 6$, $L/l_1 = 3.5$ —4, D = inlet diameter, L = diffuser length). The experiments were performed using the integral method as previously described by A. Ye. Zaryankin (O metodike integral'nykh ispytaniy diffuzorov i vykhlopnykh patrubkov. Teploenergetika, No. 3, 1962). Curves of the loss coefficient as a function of expansion ratio, expansion angle, and inlet Mach number (0.2--0.6) are presented for diffuser with and without collection spiral. It was found that diffuser losses could be reduced by 36% and that $\approx 30\%$ of the kinetic energy could be recovered by increasing the expansion ratio from 1.51 to 2.3--2.8 and the expansion

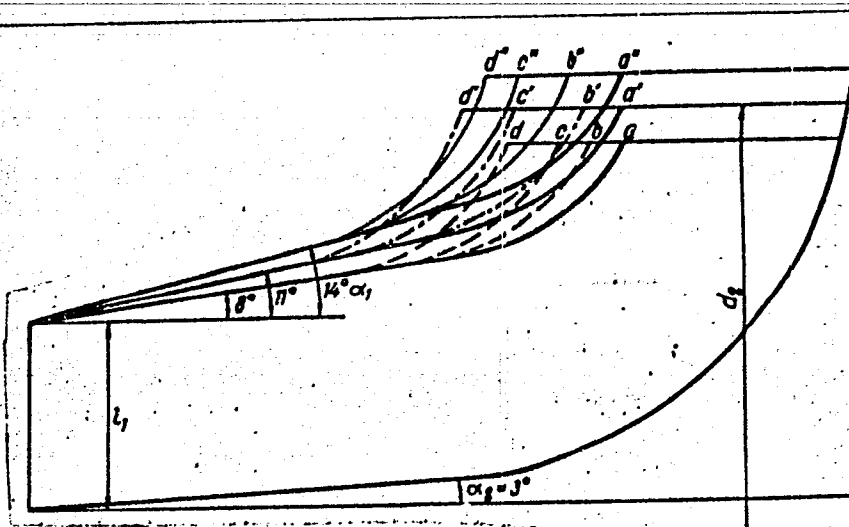
UDC: 621.438

Card 1/2

L 37079-66

ACC NR: AP6012434

Fig. 1. Diffuser geometries.



angle from 8 to 13--15°. Substantial losses (13--22%) are attributable to the exhaust spiral; the diffuser has to be properly matched. Orig. art. has: 4 figures, 1 formula, and 1 table.

SUB CODE: 21/ SUBM DATE: 18May64/ ORIG REF: 001

Card 2/2

ZARYANKIN, A. Ye., kand. tekhn. nauk, doklady ZATSEPIN, M. I., kand.
tekhn. nauk

Results of the study of the operation of turbine exhaust
ducts. Izv. vyzn. uchab. zav. energ. S no. 11830-35 N 1985.
(MIRA 1986)

1. Moskovskiy otdel Leningradskiy energoicheskii institut. Pred-
stavlena kafedroy parovykh i gazovykh turbin.

L 33025-66 T-2/EMP(f) WW
 ACC NR: AP6014396 (N) SOURCE CODE: UR/0096/66/000/001/0038/0042
 AUTHOR: Zaryankin, A. Ye. (Candidate of technical sciences) 45
 ORG: Moscow Power Institute (Moskovskiy energeticheskiy institut) B
 TITLE: Edge losses in turbine grids 34
 SOURCE: Teploenergetika, no. 1, 1966, 38-42
 TOPIC TAGS: steam turbine, turbine design, thermodynamic analysis
 ABSTRACT: In spite of a considerable number of papers devoted to edge losses, evaluation of the data presents considerable difficulty, and the present experimental data exhibits contradictions. This article is a review of known experimental data on the magnitude of edge losses. It makes a comparison of existing calculating formulas and, based on these, derives a generalized relationship. The mathematical analysis shows that the scatter of the experimental data on the magnitude of the edge losses may be in large degree due to a change in the relative distance $\bar{x} = x/\Delta$ between the outlet edges and the measurement plane. For practical calculations the article recommends the following approximate relation, connecting the coefficient of edge losses, ξ_{ed} with the axial distance \bar{x} ; this formula is valid for $1.5 < \bar{x} < 6$:
 Card 1/2 UDC: 621.165.533.6.001.5

L 33025-66

ACC NR: AP6014396

$$\zeta_{\bar{a}} = \left(0,1 + 0,02 \frac{x}{\bar{a}}\right) \frac{\bar{a}}{a}.$$

At $\bar{x} > 10$ and thin outlet edges ($\bar{\Delta} < 0.1$) it is recommended to use the following expression:

$$\zeta_{\bar{a}} = 0,26\bar{\Delta}.$$

For $1.5 < \bar{x} < 6$ the scatter of the experimental points may be brought to a minimum, regardless of the thickness of the edges. Orig. art. has: 17 formulas and 4 figures.

SUB CODE: 10/ SUBM DATE: none/ ORIG REF: 007

Card 2/2

20

1 38502-66

ACC NR: AP6019729

SOURCE CODE: UR/0096/66/000/007/0029/0032

AUTHOR: Zaryankin, A. Ye. (Candidate of technical sciences); Zatsepin, M. F. (Candidate of technical sciences); Shakh, R. K. D. (Engineer)

ORG: Moscow Power Institute (Moskovskiy energeticheskiy institut)

TITLE: Effect of geometric parameters on the operation of annular axial-radial diffusers

SOURCE: Teploenergetika, no. 7, 1966, 29-32

TOPIC TAGS: diffuser design, gas turbine, *DIFFUSER FLOW*

ABSTRACT: All experiments were carried out with air at constant values of the M and Re numbers equal, respectively, to 0.3 and 5×10^5 . Five series of diffusers were investigated. The dimensionless geometric parameters of the diffusers, the optimum degree of expansion, and the minimum values of the losses are given in a table. In the first series of experiments, a study was made of the form of the flow-through section, which is characterized by the ratio of the radii, r_2/r_1 . (See Fig. 1) The results of this series of experiments are shown in a figure which illustrates the dependence of the total losses on the dimensionless radius. Further figures, based on experimental data, illustrate the

Card 1/2

UDC: 621.165.621.43.06.001.5

L 38502-66
ACC NR: AP6019729

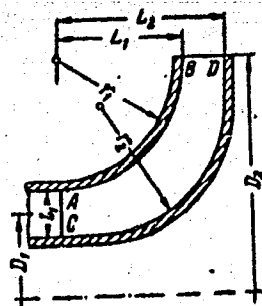


Fig. 1. Diagram of axial-radial diffuser

dependence of the losses on the axial length, the change in the losses as a function of the "radial character" of the diffuser, the dependence of the losses on the degree of expansion, and the effect of the form of the contours on the losses. Orig. art. has: 6 figures and 1 table. [06]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 002

Card 2/2 pb

ZARYANKIN, A.Ye., kand. tekhn. nauk; ZARYANKIN, O.Ye., inzh.

Calculation of the losses of axial turbines due to radial clearance.
Izv. vys. ucheb. zav.; energ. 8 no.1:63-69 Ja '65.

(MIRA 18:2)

1. Moskovskiy ordena Lenina energeticheskoy institut. Predstavlena
kafedroy parovykh i gazovykh turbin.

ZARYANOV, I.

Rural electrification in Udmurtia. Sel', stroi, 16 no.12:12-13
D '61. (MIRA 15:2)

1. Glavnyy inzhener Udmurtskogo stroitel'no-montazhnogo
upravleniya "Sel'elektrostroy."
(Udmurt A.S.S.R.—Rural electrification)

ZARYANOV, K.B.

Petrochemical characteristics of some granite intrusions in
Kazakhstan. Geokhimiia no.5:587-601 My '65. (MIRA 18:9)

ZARYANOV, N.F., inzhener; YULOVSKIY, N.V., inzhener.

Using powerful beam tetrodes in shortwave transmitters. Vest.sviazi
16 no.7:3-5 J1 '56. (MIRA 9:9)
(Electron tubes)

9(4)

PHASE I BOOK EXPLOITATION

SOV/2586

Andreyev, Petr Nikolayevich and Zaryanov, Nikolay Vasil'yevich

Tekhnika razbornykh lamp (Technology of Demountable Tubes) Moscow,
Svyaz'izdat, 1959. 111 p. Errata slip inserted. 8,400 copies printed.

Ed.: Ye. S. Novikova; Tech. Ed.: K.G. Marksch.

PURPOSE: This book is intended for engineering and technical personnel working with high-power generator tubes.

COVERAGE: The authors present brief information on high-power demountable tubes and their elements. They describe the construction and operation of auxiliary vacuum equipment for these tubes and discuss tube servicing and maintenance. The authors mention the following Soviet scientists and engineers who contributed to the development of high-power demountable tubes up to 500 kw: A.L. Mints, A.M. Kugushev, S.A. Zusmanovskiy, N.I. Oganov, P. N. Andreyev, N.I. Karpovskiy, and M.I. Basalayev. They also mention the following radio specialists of the Ministry of Communications who introduced demountable tubes

Card 1/3

sov/2586

Technology of Demountable Tubes

in the radio industry: V.N. Akayonov, A.V. Ivanov, A.P. Shchetinin, A.S. Repin, and M.M. Kuz'min. There are 48 references: 29 Soviet (including 3 translations) and 19 English.

TABLE OF CONTENTS:

Foreword	2
Introduction	3
Ch. 1. Constructional Features of Demountable Tubes	8
1. General information	8
2. RG-500 type demountable tubes	15
3. 20-c-300 type demountable tubes	24
Ch. 2. Elements of Pumping Vacuum Systems	30
1. System of pump stands	30
2. Low-vacuum rotary pumps	33
3. Oil vapor high-vacuum pumps	39
4. Auxiliary electric vacuum equipment	47
5. Measurement of vacuum. Vacuum gages	63

Card 2/3

Technology of Demountable Tubes

80V/2586

6. Leak detectors	73
7. Vacuum sealing	76
Ch. 3. Cooling of Demountable Tubes	89
1. Cooling of seams	89
2. Cooling of anodes	92
Ch. 4. Some Questions on the Operation of Demountable Tubes	93
1. Preparing tube parts for assembly	93
2. Breaking in demountable tubes	100
3. Some basic features of servicing tubes and auxiliary vacuum equipment	103
4. Leak detection	105
Conclusion	107
Bibliography	109
AVAILABLE: Library of Congress	
Card 3/3	

JP/gmp
12-29-59

ANDREYEV, Petr Nikolayevich; ZARYANOV, Nikolay Vasil'yevich; NOVIKOVA, Ye.S.,
red.; MARKOCH, K.G., tekhn.red.

[Equipment of demountable tubes] Tekhnika razbornykh lamp. Moskva,
Gos.izd-vo lit-ry po voprosam aviazi i radio, 1959. 111 p.
(MIRA 12:8)

(Electron tubes)

ZARYANOV, N.V., inzh.

Improve the products of the electronic industry. Vest. svyazi 19
no.1:11 Ja '59. (MIRA 12:1)

(Electron tubes)

Zakharov, N.V.

9(4) PEARL I BOOK EXPLANATION 507/1009
KURCH. Makovskiy elektronicheskii administrativnyy razum. Sovet
mashinnoy khorygystva

Poluprovodnikovye diody i triody i ikh primeneniye: sbornik
staty. (Semiconductor diodes and triodes and their uses).
Collection of articles. Moscow, Tsentr. byuro tekh. inform.,
1958. 102 p. (Series: Dostizheniya nauki i tekhniki)
1,700 copies printed.

Consulting Engineer: Ye. Z. Korobynikov; M.: O.P. Gama.

PURPOSE: This book may be useful to engineers in the field of
semiconductor electronics.

COVER: The articles in this collection discuss problems in the
design, manufacture, and application of new types of semi-
conductor devices. The double-base diode is described and
results of the calculation of its characteristics are given.
Fused-junction silicon and germanium triodes are discussed
and the characteristics of the type 314 fused-junction triode
are presented. The effect of feedback in transistor amplifiers
on nonlinear distortions is covered. Operation of low-frequency
transistor amplifiers for individual units of multichannel
communication systems is explained and a discussion of
transistor units of the RTF 30/50 system is presented. Attention
is given to problems of cooling transistor devices. There
is a review of Soviet and Western magazines and patents for
1956-1957 concerned with semiconductor devices and their
applications. There are no references.

TABLE OF CONTENTS:

Muravyn, A.G. and G.M. Mikirichan. Transistor Amplifiers
for Individual Units of Multichannel Communication Systems 61
The authors discuss the operation and characteristics
of a low-frequency transistor amplifier used in a
standard twelve-channel high-frequency system and derive
formulas for calculating amplifier performance. A
discussion of a transistor audio amplifier and a control-
signal receiver is also presented.

Zakharov, N.V. Cooling of Semiconductor Devices 74
The author describes a transistor chassis absorbing
heat from transistor elements and devices expressions
that may be used in the design of transistor cooling
elements.

Fridolin, G.D. Review of Certificates of Inventorship,
Foreign Journals, and Patents for 1956 and 1957 Concerned With
Semiconductor Devices and Their Applications 81
I. Transistor generators of sinusoidal oscillations 81
II. Flip-flop circuits and pulse generators 97

The author reviews Soviet and Western patents and magazines
concerned with transistor circuits. He discusses the
operation of various transistor oscillators, frequency
dividers, modulators, and multivibrators.

AVAILABLE: Library of Congress (TK7872.T73 P58)

AUTHOR: Zaryanov, N.V., Engineer SOV/111-59-1-9/35

TITLE: The Products of the Vacuum Tube Industry Must Be Improved
(Uluchshit' izdeliya elektrovakuumnoy promyshlennosti)

PERIODICAL: Vestnik svyazi, 1959, Nr 1, p 11 (USSR)

ABSTRACT: Contributions of the Soviet vacuum tube industry (to meet the new State Plan requirements) must include the production of high quality radio tubes with an increased life of 10,000 to 20,000 hours. The number of types must be reduced. Tubes required for communications purposes must be specially manufactured for the Communications Ministry. New types of large, dismountable tubes for radio stations that are far away from industrial centers must be developed and tested by laboratories of the vacuum tube industry. In radio broadcasting and rediffusion centers, the lack of high-quality modulator tubes of 0.5, 1, 5, 10 and 20 kw is acutely felt. Beam tetrodes of 3, 25, and 50 kw with activated cathodes and forced air cooling must be developed. The de-

Card 1/2

SOV/111-59-1-9/35

The Products of the Vacuum Tube Industry Must Be Improved

velopment of large ceramic tetrodes (air and water cooling) of 5 kw and more on operating frequencies 300 to 500 and 1,000 mc for TV transmitters, must be intensified. Sealed-off tubes with activated cathodes and a life of over 10,000 hours are necessary. The cooling systems for all types of radio tubes must be improved.

Card 2/2

Z ARYANOV, N. V.

COMPONENTS

"Replacement of High Power Tungsten-Cathode Vacuum Tubes in Radio Transmitting Apparatus by Tubes with Activated Cathodes" by N. V. Zaryanov, Engineer. Vestnik Svyazi, No 12, December 1957, pp 7-8.

The author calculates the savings in electric energy, obtained when the tube replacement is made. He also raises the problem of accelerating the modernization of transmitting apparatus.

Card: 1/1

-2-

ZARYANOV, N. V.

Category : USSR/Radiophysics - Generation and conversion of radio-frequency oscillations

I-4

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1842

Author : Zaryanov, N.V., Yulovskiy, N.V.

Title : Use of Beam Power Tetrodes in Short-Wave Transmitters

Orig Pub : Vestn, svyazi, 1956, No 7, 3-5

G-1

Abstract : No abstract

Card : 1/1

ZARYANOV, N. V.

KAMENSKIY, N.N., inzhener; ZARYANOV, N.V., inzhener.

Some radio engineering news from France. Vest. svyazi 17 no.5:
29-31 May '57. (MLRA 10:5)
(France--Radio relay systems)

ZARYANOV, N.V., inzhener.

Regeneration of televiser tubes. Vest.sviazi 16 no.2:14 P '56.
(Television--Picture tubes) (MIRA 9:7)

OSTRYAKOV, P.A. [deceased]; ZARYANOV, H.V.; GARTUNG, S.V., otvetstvennyy redaktor; ANDREYENKO, Z.D., redaktor; VEYNTAUB, A.B., tekhnicheskiy redaktor.

[Heat eliminating apparatus for powerful radio stations] Teplootvodiashchie ustroiatva moshchnykh radiostantsii. Moskva, Gos. izd-vo lit-ry po voprosam svyazi i radio, 1954. 258 p. [Microfilm]
(Radio stations) (MLRA 8:1)

ZARYANOV, N. V.

USSR/Miscellaneous - Cooling systems

Card 1/1 Pub. 133 - 2/18

Authors : Zaryanov, N. V., Engineer at the Ministry of Communications USSR

Title : About systems of cooling radio station equipment

Periodical : Vest. svyazi 12, 3-5, Dec 1954

Abstract : The various types of heat-diverting devices and systems, used by large USSR radio and television stations, for cooling electronic-equipment during operation are mentioned. They are presented for the selection of equipment.

Installed : ...

Submitted : ...

ZARYANOV, N.V., inzhener

Electron tubes with forced air cooling and problems in their use.
Vest.sviazi 15 no.8:6-7 Ag'55. (MIRA 8:12)
(Electron tubes)

ZARYANOV, N.V., inzhener

Increase the life of receiving and amplifying tubes. Vest.
aviazi 18 no.9:12-14 S '58. (MIRA 11:10)
(Electron tubes)

AMIRKHAPOV, Kh.I.; BRANDT, S.B.; BARTNITSKIY, Ye.N.; VORONOVSKIY, S.N.;
ZAR'YANOV, V.I.

Sound foundation for geochronometry. Biul.Kam,po opr.abs.vozr.geol.
form. no.5:53-59 '62. (MIRA 15:11)
(Geological time)

ZARYANOVA, V. N.

ZARYANOVA, V. N. --"Obtaining Liquid Motor Fuel by Means of a Thermal Solution of Agricultural Waste Products." Sub 18 Apr 52, Moscow Inst of Mechanization and Electrification of Agriculture imeni V. M. Molotov (Dissertation for the Degree of Candidate in the Technical Sciences)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

ZARYANOVA, Ye.A.

Osmoregulatory function of kidneys in infants during their first year of life. Vop.okh.mat. 1 det. 1 no.3:36-40 My-Je '56.

(MIRA 9:9)

1. Iz kafedry gosital'noy pediatrii (zav. - doystvitel'nyy chlen AMN SSSR prof. A.F.Tur) i kafedry normal'noy fiziologii (zav. - chlen-korrespondent AMN SSSR prof. A.G.Ginetsinskiy) Leningradskogo gosudarstvennogo pediatricheskogo meditsinskogo instituta (dir. - prof. N.T.Shutova)

(INFANTS)

(KIDNEYS)

ZARYANOVA, Ye.A.

Osmoregulatory function of kidneys in infants during their first year of life. Vop.okh.mat. i det. 1 no.3:36-40 My-Je '56.

(MIRA 9:9)

1. Iz kafedry gosital'noy pediatrii (zav. - deystvitel'nyy chlen AMN SSSR prof. A.F.Tur) i kafedry normal'noy fiziologii (zav. - chlen-korrespondent AMN SSSR prof. A.G.Ginetsinskiy) Leningradskogo gosudarstvennogo pediatricheskogo meditsinskogo instituta (dir. - prof. N.T.Shutova)

(INFANTS)

(KIDNEYS)

ZARYANOVA, YE. B.

Sturgeons

Methods of incubating sturgeon roe. Ryb. khoz. 28 no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

ZARYANOVA, YE. B.

Sturgeons

Evaluation of fertility of sturgeon roe.
Dokl. An SSSR 85, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress,
November, 1952. UNCLASSIFIED.

ZARYANOVA, YE. B.

Dissertation: "The Morphobiological Characteristics of the Sturgeon in Relation to Various Methods of Incubation in the Early Stages of Development." Cand Biol Sci, Moscow Technical Inst of the Fish Industry and Economy imeni A. I. Mikoyan, 23 Jun 54. (Vechernyaya Moskva, Moscow, 14 Jun 54)

SO: SUM 318, 23 Dec 1954

ZARYANOVA, V.N.

6606

ZARYANOVA, V. N.

ITINSKAYA, N. I. 1 ZARYANOVA, V. N. RUKOVODSTVO DLYA
PROVEDENIYA LABORATORNIKA RABOR PO KURSU " TOPLIVO,
SMAZOCHNYE MATERIALY I VODA". SOST. N. I. ITINSKAYA,
V. N. ZARYANOVA. M., 1954. 56 S 21 SM(M-VO VYSSH
OBRAZOVANIYA SSSR MOSK IN-T MEKHANIZATSII I
ELEKTRIFIKATSII SEL'SKOGO KHOZYAYSTVA IM V. M. KOLOTOVA.
VSESOUZ. S.-KH IN-T ZAOCH OBRAZOVANIYA.) 2,000 EKZ.
BESPL.---(55-2266)

662.6 plus 621.89 plus 663.63(071.4)

SO: KNIZHANYA LETOBIS N'0. 6, 1955

ZARYENICKY, K.

"The Campaign Against Uneconomical Stocks in the Building Industry"
The Article discusses the uneconomical practice of carrying over-
large stocks of spare parts for machinery and the rationalization
of same by standardization, stores control.

SO: Mechanisace, Czechoslovakia, Vol 3, No 1,
Jan 1954 (AF-617422, 12 Apr 1954)

ZARYBNICKY, K.

Experience of a mechanizer in preparing the general inventory. p. 413.
Program of Mechanisace for 1955. p. 416.

Vol. 3, no. 12, Dec. 1954 (Mechanisace) .
INZENTRSKE STAVEY
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5 No. 4 April 1956

ZARYBNICKY, K. - Mechanisace Vol. 3,,no. 1, Jan. 1954

Campaign against excess stocks of building machinery. p.2.

SG: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955, Uncl.

ZARYBNICKY, K.- Mechanisace vol. 3, No. 1, Jan. 1954

Evaluation of results of the competition between heavy building machinery crews. p.23

SO: Monthly List of East European Accessions, EEAL, LC, Vol 4, No.9, Sept. 1955 Uncl.

WARYENICKY, K.

"Evaluation of Results of the Competition between Heavy Building Machinery Crews."

SO: Mechanizace, Czechoslovakia, Vol 3, No 1,
Jan 1954 (AF-617422, 12 Apr 1954)

... of rectangular cross-section, was ...

ZARYTS'KIY, M.O., professor

Certain properties of derivative sets in abstract spaces. Nauk.
zap. L'viv. un. no.5:22-23 '47. (MLRA 8:11)
(Spaces, Generalized) (Topology)

ZARYVAYSKAYA, Kh. [Zaryvais'ka, Kh.], kand.med.nauk; GOYEVSKAYA, V.
[Halevs'ka, V.], vrach.; SHEYKINA, Ye., vrach.; VISHNEVA, P.,
vrach

Results of hygiene tests of hot-air heating systems with natural
stimulation. Bud.mat.i konstr. no.5:61-62 3-0 '62. (MIRA 15:11)
(Hot-air heating)

ZARYTS'KIY, M.

Note on approximate calculations of the ancient Greeks, Nauk.zap.
L'viv. un. no.5:74-79 '47. (MLRA 8:11)
(Mathematics, Greek)

BESHAR, A.M.; ZARZAR, A.S.

Selection of an obturator for opening a gastric fistula. Med. zhur.
Uzb. no. 1:59 Ja '60. (MIRA 13:8)

1. Iz kliniki khirurgii detskogo vozrasta (zav. - dotsent K.Kh.
Tagirov) Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(FISTULA) (MEDICAL INSTRUMENTS AND APPARATUS)

ZARZAR, V. A.

ZARZAR, VALENTIN ANAN'EVICH, and V. L. LAKHTIN.

Bor'ba za vozdukh; problemy sovremennoi vozdushnoi politiki i ee pravovoi reglamentatsii (s prilozheniem 6-ti kart vozdushnykh so-obshchenii) s predisloviiami I. A. Fel'dmana i prof. E. A. Korovina. Moskva, "Osoaviakhim", 1927. 85 p., maps.

Title tr.: The struggle for the air: problems of the modern air policy and its legal aspect (six maps of air lines appended).

TL552.Z3

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

ZARZAR, Valentin Anan'evich

(The struggle for the air; problems of present-day air policy and its lawful regulation)
Moskva, Osoaviakhim, 1927. 85 p. maps. (40-19-960) Bor'ba za vozdukh...1927.
(Card 2, 40-19960) Dimir 'evich, jt. au. II. Soiuz obshchestv družei oborony i aviatsionno-
khimicheskogo stroitel'stva SSSR. III. Obshchestvo družei oborony i aviatsionno-
shimicheskogo stroitel'stva RSFSR.

ZARZAR, Valentin Anan'evich

Civil aviation in the USSR and its five year plan. Moskva, Izd. Soiuza Osoaviakhim
SSSR i Soveta po grazhdanskoi aviatsii, 1929. 28 p. (40-36862)

TL526.R9Z3

ZARZAR, Valentin Anan'evich

Air routes in the USSR and abroad. Moskva, Osoaviakhim, 1929. 31 p. map. (Biblioteka zhurnala "Aviatsiia i khimiia, no. 5) (40-36863)

TL526.R9Z33

ZARZAR, Valentin Anan'evich.

Contemporary aircraft construction: its role and immediate prospects in the USSR.
Moskva, Gos. planovokhoziaistvennoe izd-vo, Planokhozgis, 1930. 44 p. rups.
(43-30006)

TL545.233

ZARZAR, Valentin Anan'evich.

Motorization and road construction in the USSR. Moskva, Plankhozgiz,
1931. 112 p. (49-39524)

HE5675.A6Z3

ZARZAR, Valentin Anan'evich.

The 2d Five-Year Plan for the civil air fleet. Moskva, Gos. sots.-ekon. izd-vo, 1932. 31 p. (51-45156)

TL526.R9234

ZARZAR, Valentin Anan'evich.

The USSR civil air fleet for a period of ten years. Moskva, Aviaavtoizdat, 1933.
31 p. map. (43-30011)

TL526.R9Z28

ZARZAR, VALENTIN ANAN'EVICH

ZARZAR, VALENTIN ANAN'EVICH. Avtomobilizatsiia i dorozhnoe stroitel'stvo v SSSR. Moskva, Plankhozgiz, 1931. 112 p.

DLC: HE5675.A6Z3

SO: LC, Soviet Geography, Part I, 1951, Uncl.

ZARZAR, VALENTIN ANAN^YEVICH.

Sovremennoe sostoianie vozdushnykh sredstve, kak predposylka
razvitiia vozdushnogo prava. (In: Voprosy vozdushnogo prava, v. 1.
Moskva, 1927, p. 18-25)

Title tr.: Contemporary condition of the means of aerial com-
munication as a premise for the development of air law.

DLC: Law Library

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

ZARZAR, VALENTIN ANAN⁴EVICH.

Mezhdunarodnoe publichnoe vozdušnoe pravo. (In: Voprosy voz-
dushnogo prava, v. 1, Moskva, 1927. p. 89-103)

Title tr.: International public air law.

DLC: Law Library

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

ZARZAR, VALENTIN ANAN'EVICH.

Grazhdanskaia aviatsiia SSSR i ee piatiletnii plan. Moskva,
Izd. Soiuza Osoaviakhim SSSR i Soveta po grazhd. aviatsii, 1929. 28 p.,
illus., diagrs.

Title tr.: Soviet civil aviation and its Five-Year Plan.

TL526.R9Z3

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

ZARZAR, VALENTIN ANAN'EVICH.

ZARZAR, VALENTIN ANAN'EVICH.

Vozdushnye puti v SSSR i zagranitse. Moskva, Izdat-vo "Osoaviakhim",
1929. 3lp., illus., map.

Title tr.: Airways in the U. S. S. R. and abroad.

TL526.R9Z33

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

ZARZAR, VALENTIN ANAN'EVICH.

ZARZAR, VALENTIN ANAN'EVICH.

Sovremennoe aerostroitel'stvo, ego rol' i blizhaishie perspektivy v SSSR. Moskva, Plankhozgiz, 1930. 44 p., plates, fold. maps.

Title tr.: Modern aircraft construction, its role and immediate perspectives in the USSR.

TL545.Z33

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

ZARZAR, VALENTIN ANAN^YEVICH.

Noveishee v sovremennom aeronautizme. (In: Voprosy vozdushnogo prava, v. 2. Moskva, 1930. p. 7-28)

Title tr.: Recent news of contemporary aeronautics.

NN

S0: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

ZARZAR, VALENTIN ANAN'EVICH.

Vtoraia piatiletka grazhdanskogo vozdušnogo flota. Moskva, Sotsekgiz,
1932. 31 p.

Title tr.: The Second Five-Year Plan of the Civil Air Fleet.

TL526.R9Z34

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

ZARZAR, VALENTIN ANAN^YEVICH.

10 let grazhdanskogo vozdushnogo flota SSSR. Moskva, Aviaavtoizdat,
1933. 31 p., illus., ports., map.

Title tr.: Ten years of the USSR Civil Air Fleet.

TL526.R9Z28

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

ZARZAR, Valentin Anan'yevich

Bor'ba za vozdukh. [The struggle for the air]. Problemy sovremennoi vozdukhnoi politiki i ee pravovoi reglamentatsii (s prilozheniem 6-ti kart vozdushnykh soobshchenii) s predisloviem I.A. Fel'dmana i prof. E.A. Korevina. Moskva, Osoaviakhim, 1927. 85 p. maps.

DLC: TL552.Z3

10 let grazhdanskogo vozdušnogo flota SSSR. [10 years of the civil air fleet of the USSR]. Moskva, Aviaavtoizdat, 1933. 31 p. illus. (incl. ports., double map).

DLC: TL526.R9Z28

Itogi i blizhaishie perspektivy aerofikatsii SSSR. [Results of and prospects for aerofication of the USSR]. (Samolet, 1930, no. 11, p. 3-4).

DLC: TL504.S25

Sovremennoe aerostroitel'stvo, ego rol' i blizhaishie perspektivy v SSSR. [Present day aeroconstruction, its role and the future prospects in the USSR]. Moskva, Gos. Plankhozgiz, 1930. 44p. plates, fold. maps.

DLC: TL545.Z33

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

ZARZAR, Valentin Anan'evich

Avtomobilizatsiia i dorozhnoe stroitel'stvo v SSSR. [Development of automobilism and road construction in the USSR]. Moskva, Plankhozgiz, 1931. 112 p.
DLC: HE5675.A623

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

ZARZAF, V.

Problema rekonstruktsii khoziaistva sviazi SSSR. / The problem of the reconstruction of communication facilities of the U.S.S.R. (Planovoe khoziaistvo, 1930, no. 4, p. 37-55).
DLC: HC331.P52

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1952, Unclassified.

ZARZAR, Valentin Anan'evich

Bol'shie sovetskie perelety 1926 g. [The great Soviet flights of 1926]. (Samolet, 1926, no. 5, p.2-3).

DLC: TL504.S25

Itogi bol'shogo evropeiskogo pereleta samoleta "Kryl'ia sovetrov". [Results of the great European flight of the airplane "Kryl'ia sovetrov"]. (Vestnik vozdushnogo flota, 1929, no. 9, p. 207, map).

DLC: TL 504.V45

Novyi etap razvitiia sovetskoi aviatsii. [A new stage in the development of Soviet aviation]. K bol'shim pereletam 1927 g (Vestnik vozdushnogo flota, no. 7, p.3-5).

DLC: TL504.V45

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress Reference Department, Washington, 1952, Unclassified.

ZARZAR, Valentin Anan'evich

Grazhdanskaia aviatsiia SSSR i ee Piatiletanii plan. [The civil aviation in the USSR and its five-year plan]. Moskva, Izd. Soiuza Osoaviakhim SSSR i Sovets po grashdanskoi aviatsii, 1929. 28 p. illus., diags.

DLC: TL526.R9Z3

Piatiletanii plan razviti a sovetskikh grazhdanskikh avialinii. [The five-year plan for the development of Soviet civil air lines]. (Vestnik Vozdushnogo flota, 1929, no. 1, p. 30-32).

DLC: TL504V45

Sovetskaia grazhdanskaia aviatsiia i ee perspektivy. [Soviet civil aviation and its prospects]. (Planovoe khoz-vo, 1928, no. 8, p. 240-255. Summary of development of Soviet civil aviation during 1922-1927/28, p. 254-249).

DLC: HC331.P52

Vozdushnye puti v SSSR i zagranitse. [Air routes in the USSR and abroad]. Moskva, Osoaviakhim, 1929. 31p. illus. (map) (Biblioteka shurnala "Aviatsiia i khimiia". No. 5).

DLC: TL526.R9Z33

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

(Page 1 of 2)

ZARZECKA, Eleonora

Segregation of fast-cutting steel drills by the β -X
fluorescence analysis method. Nukleonika 9 no.9:759.
'61 '64.

1. Institute of Basic Technical Problems, Department of Isotope
Research, Polish Academy of Sciences, Warsaw.

RADWAN, Maciej, prof. dr.; ZARZECKA, Eleonora, mgr inz.; LUTY, Wacław,
mgr inz.

Testing the degree of chromium mixing by the method of activation
analysis in 50 HSA steel melted with the use of the inductive
agitator. Hutnik 31 no.3:69-71 Mr '64.

1. Institute of Basic Technical Problems of the Polish Academy
of Sciences, Warsaw (for Radwan and Zarzecka). 2. Warszawa
Steel Works (for Luty).

ZARZHEVSKAYA, D.A.

History of antiepidemic measures in Russia. Voen. med.
zhur. no.10:84-85 0 '65. (MIRA 18:11)

ZARZHEVSKIY, Noy Isaakovich; BERDNIKOV, Sergey Fedorovich;
MATVEYEV, S.M., red.

[Chelyabinsk Tractor Plant] Cheliabinskii traktornyi za-
vod. Cheliabinsk, Cheliabinskoe knizhnoe izd-vo, 1962.
118 p. (MIRA 17:9)

KARPOV, A.A., inzh.; KUSTOBAYEV, G.G., inzh.; LAUSEKIN, N.P., inzh.;
LANGE, Z.I., inzh.; NOSYREVA, M.D., inzh.; SAVEL'YEV, G.V., inzh.;
SHCHULEPHNIKOV, I.S., inzh.; Primalni uchastiye: SYCHKOV, B.A., inzh.;
MILIKHIN, A.Ye., inzh.; ZAYTSEV, R.A., inzh.; ZARZHITSKIY, Yu.A.,
inzh.; LEONT'YEV, A.I., inzh.; VIKTOROVA, T.Ye., inzh.; SERIKOV, A.A.,
inzh.

Operation of recuperator soaking pits in the 1150 MMK rolling
mill. Stal' 22 no.8:753-758 Ag '62. (MIRA 15:7)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Furnaces, Heating) (Rolling mills)

ZARZHITSKIY, Yu. A.

S/133/61/000/003/002/011
A051/A033

AUTHORS: Dikshteyn, Ye. I.; Goncharevskiy, Ya. A.; Zuts, K.A.; Antipin, V. G.; Kozhanov, M. G.; Zarzhitskiy, Yu. A.; Kulakov, A. M.;

TITLE: Mastering the operation of a 500-ton open-hearth furnace fired by coke-oven gas and mazut

PERIODICAL: Stal', no. 3, 1961, 210 - 211

TEXT: The 500-ton open-hearth furnace designed by the "Stal' proyekt" operates according to the scrap-ore process and is fired by cold coke-gas (1100 cal/m^3) and mazut (9600 cal/kg). The principal data of the furnace are: charge 500 - 550 tons, hearth area 105 sq m, depth of the bath 1.2 m, height (over the altar level) of the crown 3.15 m, of the air partition 1.35 (1.2) m, of the burner axis 1.30 (1.6) m, useful volume of slag chamber $11/2 \text{ m}^3$, stack height 90 m. The results obtained by the furnace design and firing system could be improved by incorporating several modifications. For instance, there are two gas-mazut burners, one on either side of the furnace. This is a simple structural solution but did not prove very effi-

Card 1/3

Mastering the operation of a

S/133/61/000/003/002/01h
A05h/A033

cient. By applying two or three burners on either side of the furnace this situation could be improved. The blast produced is not enough to ensure the heat conditions required. The vacuum produced by the stack and wasteheat boiler (60 and 75 mm water column, respectively) is inadequate to efficiently evacuate the gaseous combustion products from the operating area of the furnace. The efficiency of the blast system is unfavourably affected by losses in the cold-air exhaustion system through the slag chambers, which require a better insulation. The heat transfer capacity of the torch was also unsatisfactory. Carbon monoxide in the combustion products in the vertical channel already disappeared when there was 3 - 3.5 % oxygen present, indicating an inadequate mixing of fuel and air. In order to improve the mixing and radiation capacity of the torch, compressed air was introduced separately through a special tube. This, however, did not solve the problem and had to be put down to the wrong type of feed-opening. Tests were also carried out to raise the heating capacity of the torch by improving the operation of the pulverizer, by means of increasing its capacity, i.e., the consumption of high-pressure steam in the pulverizer. The radiation capacity of the torch for cold coke-gas and mazut depends largely on the ratio at which these two fuels are consumed. For the furnace in question the optimum

Card 2/3

Mastering the operation of a

S/233/61/000/003/002/011
105h/1013

condition for the torch was obtained when 1700 - 1800 hg/h mazut was consumed and when the thermal load of the furnace amounted to 10 mill. cal/h, (Fig. 6). Tests carried out to improve the furnace operation by increasing the heat load to 50 mill. cal/h only resulted in greater wear, without improving the operational conditions. Actual improvement was obtained by decreasing heat losses through the stoke holes, amounting to 2 mill. cal/h, by a suitable insulation and by feeding 1800 - 2000 Hm³/h compressed air into the torch, thus increasing its temperature to 1850°C and distributing it more uniformly along the torch. By increasing the heating capacity of the torch, the time required for the optimum heating of the charge and for burning out carbon was reduced. By intensifying the thermal conditions of the furnace, desulfurization became more intensive and it was possible to smelt 08 k7 (08kp) grade steel in the furnace. Although the reconstruction of the furnace and the application of modifications improved and stabilized the operation of the 500-ton mixed fuel furnace, the burner system will still have to be modified and a suitable method to be applied for preparing the gas, in order to change over from mixed fuel to gas-firing only. There are 9 figures and 2 tables.

Card 3/3

BIRKENVAL'D, P.V.; BURDIN, M.P.; GORKIN, S.F.; YEGOROV, V.P.; ZARZHETSKIY,
Y.A.; KOMODOV, A.A.; LAKTIONOV, A.T.; LEBEDENKO, D.P.; LYHEVSKIY, A.A.;
LOBANOV, G.V.; LYAKHOVETSKIY, Z.Ya.; MIROYEVSKAYA, O.N.; MIKHAYLOV,
P.N.; NIKOLAYEV, S.V.; PAKHODEYEV, V.I.; SOKOLOV, G.V.; STRIZHEV, N.I.;
SHAPOVALOV, V.A.; YAVKIN, P.Ye.; IVANININ, P.D., redaktor; DROZDOV,
A.I., redaktor vypuska; SERGEYEVA, N.A., redaktor izdatel'stva;
BORISOV, A.S., tekhnicheskiy redaktor

[Handbook of consolidated estimate norms for geological prospecting
operations] Spravochnik ukрупnennykh smetnykh norm na geologo-
razvedochnye raboty (SUSN). Moskva, Gos. izd-vo geol. lit-ry. No.7
[Rotary drilling] Rotornoe burenie. 1950. 175 p. (MLRA 9:12)
[Microfilm]

1. Russia (1923- U.S.S.R.) Ministerstvo geologii.
(Boring)

ZARZHEVSKAYA D.A.

KOYRANSKIY, B.B.; ZARZHEVSKAYA, D.A.

Protective physiological reactions of the vascular system during cooling of the organism. Gig. i san. no.9:32-36 8 '54. (MLRA 7:10)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta gigiyeny truda i professional'nykh zabolevaniy.

(BLOOD VESSELS, physiology,

eff. of cold, plethysmography)

(COLD, effects,

on blood vessels, plethysmography)

Translation M-652, 26 Jul 55

ZARZHEVSKAYA, D.A.

Subject : USSR/Medicine

AID P - 2486

Card 1/1 Pub. 37 - 15/19

Authors : Koyranskiy, B. B., Prof., and Zarzhevskaya, D. A.

Title : On the protective physiological reactions of the
vascular system during cooling of the organism

Periodical : Gig. i san., 7, 53-55, J1 1955

Abstract : An answer to L. G. Okhnyanskaya's critical review of the
authors' work of the same title. The article by
Okhnyanskaya was published in this Journal, 1955, no. 3,
p. 51-52. Table. Refs. in footnotes.

Institution: None

Submitted : Apr. 23, 1955

SIDYAKOV, P.V.; ZARZHEVSKIY, M.Ya.; YERNOLAYEVA, G.F.

Ventilation of blast furnace air-preheater buildings [with summary
in English]. Stal' 18 no.8:691-693 Ag '58. (MIRA 11:8)

1. Nauchno-issledovatel'skiy institut gigiyeny truda i profzabolevaniy.
(Metallurgical plants--Heating and ventilation)
(Air preheaters)

SOV/133-52-8-5/30
AUTHORS: Sidyakov, P.V., Zarzhevskiy, P.Ya., and Yermolayeva, G.F.
TITLE: Ventilation of the Hot Blast Stove Houses of Blast
Furnaces (Ventilyatsiya zdaniy vozdukhonagrevateley
domennykh pechey)
PERIODICAL: Stal', 1958, Nr 8, pp 691 - 693 (USSR)
ABSTRACT: Various systems of ventilation of buildings partly
enclosing hot blast stoves were investigated. On the
basis of the results obtained, a ventilation system
based on natural movement of air is recommended.
There are 2 figures and 3 tables.
ASSOCIATION: Nauchno-issledovatel'skiy institut gigiyeny truda
i profzabolevaniy (Scientific-research Institute
of Labor Hygiene and Occupational Diseases)
Card 1/1 1. Structures---Ventilation 2. Furnaces---Equipment

ZARZHINSKIY, A.

Some problems in the manufacture of latex sponge. Kauch. i rez.
17 no. 7:32-33 Jy '58. (MIRA 11:7)
(Foam rubber)

AUTHOR: Zarzhinskiy, A.

SOV/138-58-7-9/19

TITLE: Some Points in the Production of Latex Foams (Nekotoryye voprosy proizvodstva lateksnoy gubki)

PERIODICAL: Kauchuk i rezina, 1958, Nr 7, pp 32 - 33 (USSR)

ABSTRACT: This article gives an account of some of the methods used in Poland for the production of latex foams. Natural latex is mixed in large, 50 to 120-ton, batches in order to attain uniformity of product. These batches are stirred for an hour once or twice per week with propeller mixers rotating at 200 rpm, mounted at an angle of 30° to vertical in the concrete or metal storage tanks. The latex foams are gelatinised either by action of sodium silica fluoride or by zinc oxides with ammonium salts. In the former case, it is necessary to reduce the ammonia content in the latex to less than 0.05%. This is effected either by combination of the ammonia with formalin or by air drying the latex surface while it is stirred at 60 - 70 °C. In this case, care must be taken that the warm air is not stirred into the latex. A representative mix is given, containing sulphur, "super-accelerator", anti-oxidant, activated zinc oxide

Card1/3

SOV/138-58-7-9/19

Some Points in the Production of Latex Foams

(0.6 - 3.0%), emollient and filler. The ingredients are dispersed either in stone ball mills or in Shrader homogenizers. The mix is held in 1/2 to 20-ton lots for 12 to 24 hours at a temperature of 25 - 40 °C, to age and is then cooled back to 20 °C. Foaming can either be performed continuously or in 200-litre lots. Various soaps are used as foaming agents and the foaming can be accelerated considerably if a solution of soap and distilled water, amounting to about one-third of the volume of the latex mix, is first put into the mixer and the latex mix then added. The speed of the mixer should be reduced before stirring is completed and the gelatinising agent added after the volume has increased to 5 to 10 times.

The advantages of sodium silica fluoride as a gelatinising agent are uniformity of gelatinisation throughout the foam, higher strength and the fact that vulcanisation can be effected immediately. Disadvantages are the necessity of removal of ammonia from the latex, lengthy preparation to disperse and mix the material and sensitivity to alkalis. Advantages of zinc oxide with ammonium salts are solubility and stability, the process is not critically sensitive to temperature and that ammonia does not have to be removed

Card2/3

Some Points in the Production of Latex Foams SOV/138-58-7-9/19

from the latex. It is, however, necessary to hold the gelatinised foams for 20 - 30 minutes before vulcanising them.

Sodium silica fluoride is usually employed for products with fairly considerable thickness. Zinc oxide is generally used for articles up to 6 cm thickness, although with good control it can be used for products up to 15 cm thickness. Vulcanisation is effected either by hot water or by saturated steam at a pressure of 0.5 atm, or in the case of thicker products, up to 0.8 atm. vulcanising time is 25 - 55 minutes according to the amount and type of accelerator which is used.

Reference is made to a previous article in Kauchuk i rezina, 1957, Nr 3, by D.Sandomirskiy and M. Zarvetskiy.

1. Foam rubber--Poland 2. Foam rubber--Production

Card 3/3